

CLAIMS:

What is claimed is:

1 1. A method of indicating a status affected by the performance of an ALU
2 mathematical operation, comprising:

3 executing an ALU mathematical operation instruction on a set of source operands;

4 determining that the ALU mathematical operation instruction corresponds to an ALU
5 mathematical operation instruction with carry;

6 producing a result based on the set of source operands in accordance with the ALU
7 mathematical operation instruction; and

8 setting a status flag based on the result.

1 2. The method according to claim 1, wherein the step of setting the status flag
2 includes the step of determining that the result is a non-zero value.

1 3. The method according to claim 2, wherein the step of setting the status flag
2 includes the step of clearing the status flag by writing a value of zero to the status flag.

1 4. The method according to claim 3, wherein the step of setting the status flag
2 includes the step maintaining the value of zero in the status flag until an ALU
3 mathematical operation instruction without carry is determined.

1 5. The method according to claim 1, wherein the step of setting the status flag
2 includes the step of determining that the result is a zero value.

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1 6. The method according to claim 5, wherein the step of setting the status flag
2 includes the step of maintaining the value in the status flag.

1 7. A processor for indicating a status affected by the performance of an ALU
2 mathematical operation, comprising:

3 an ALU operable to:

4 execute an ALU mathematical operation instruction on a set of source operands;
5 determine that the ALU mathematical operation instruction corresponds to an ALU
6 mathematical operation instruction with carry;
7 produce a result based on the set of source operands in accordance with the ALU
8 mathematical operation instruction; and
9 set a status flag based on the result.

1 8. The processor according to claim 7, further comprising the ALU operable to
2 determine that the result is a non-zero value.

9. The processor according to claim 8, further comprising the ALU operable to clear
1 the status flag by writing a value of zero to the status flag.

3 10. The processor according to claim 9, further comprising the ALU operable to
4 maintain the value of zero in the status flag until an ALU mathematical operation
5 instruction without carry is determined.

1 11. The processor according to claim 7, further comprising the ALU operable to
2 determine that the result is a zero value.

1 12. The processor according to claim 11, further comprising the ALU operable to
2 maintain the value of the status flag.

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